

Annex to Form PCT/ISA/206
COMMUNICATION RELATING TO THE RESULTS
OF THE PARTIAL INTERNATIONAL SEARCH

International Application No
PCT/2004/005376

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.
see 'Invitation to pay additional fees'
2. This communication is not the international search report which will be established according to Article 18 and Rule 43.
3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.
4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|-----------------------------------|
| X | US 2002/136498 A1 (FOOTE PETER DAVID ET AL) 26 September 2002 (2002-09-26) | 1-9, 12-17, 19-28, 30-38 |
| Y | abstract paragraphs '0001!, '0003!, '0004!, '0006! - '0012! paragraphs '0015! - '0024!, '0028! paragraphs '0035! - '0039!, '0050!, '0051! paragraphs '0053!, '0057! - '0059!, '0064! - '0068!, '0077! figures 1B-C, 2a-b, 3A-B | 10, 11, 18, 29 |
| X | PATENT ABSTRACTS OF JAPAN vol. 2002, no. 09, 4 September 2002 (2002-09-04) -& JP 2002 156093 A (SUMITOMO FORESTRY CO LTD), 31 May 2002 (2002-05-31) | 13, 24 |
| Y | abstract paragraphs '0016!, '0031! - '0035! figures 1, 3, 4 | 10, 18, 29 |
| X | US 5 568 582 A (RAJIC SLOBODAN ET AL) 22 October 1996 (1996-10-22) | 24 |
| Y | abstract column 2, line 39 - column 3, last paragraph figures 1-3 | 11 |
| | | -/- |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

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| International Application No |
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|-----------------------|
| X | WO 03/098301 A (QINETIQ LTD ;BURNETT JAMES GORDON (GB); LLOYD PETER ARTHUR (GB)) 27 November 2003 (2003-11-27) abstract | 24 |
| A | page 4, line 15 - page 5, line 25 figures 1-4 | 1-23, 25-38 |
| A | US 5 355 429 A (LEE NICHOLAS A ET AL) 11 October 1994 (1994-10-11) abstract column 5, line 1 - column 7, paragraph 2 figures 5,6,10,11 | 1-38 |
| A | Z.J. LU AND F.A. BLAHA: "Application issues of fiber optic sensors in aircraft structures" September 1991 (1991-09), PROCEEDINGS SPIE VOL. 1588, PP. 276-281 , XP008030419 page 276, last paragraph - page 277, paragraph 2 figures 1-3 | 1-38 |

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-38

Method and device relating to the substrate comprising an embedded fibre connector component and an embedded fibre optic.

1.1. claims: 1-37

Method and device relating to the substrate comprising an embedded fibre connector component and an embedded fibre optic optically connected to the embedded fibre connector component, the connector component being suitable for forming a fibre abutment connection with a second fibre optic.

1.2. claim: 38

a connector component suitable for providing a fibre abutment connection between a second fibre optic and an embedded connector component.

2. claims: 39-45

Automatically operable machine system suitable for exposing the fibre connector component embedded in a substrate and related program instruction code.

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

1. Reference is made to the following document:

Du: EP 1 150 145 A1 (cited by the applicant)

D1: US 2002 136498 A1

The reasons for the objection is as follows:

2.1 From a comparison of the disclosure of the prior art Du with the technical features of the group of claims, the following special technical features (STF) according to Rule 13.2 PCT have been identified:

Invention 1: Claims 1-38:

1a) Claims 1-37: Method and device relating to the substrate comprising an embedded fibre connector component and an embedded fibre optic optically connected to the embedded fibre connector component, the connector component being suitable for forming a fibre abutment connection with a second fibre optic.

1b) Claim 38: a connector component suitable for providing a fibre

abutment connection between a second fibre optic and an embedded connector component.

STF = a fibre abutment connection between the embedded fibre connector component and the second fibre optic, wherein the second fibre optic is for guiding radiation between the embedded fibre connector component and a surface connector.

From this STF the problem to be solved is to provide an improved coupling between the embedded and surface connectors.

Invention 2: Claims 39-45: Automatically operable machine system suitable for exposing the fibre connector component embedded in a substrate and related program instruction code.

STF = automatic operation

From this STF, the problem to be solved is to provide a versatile machine system suitable for providing an access to embedded connectors.

In assessing STF of Invention 2, the following is to be taken into account:

The novelty of the subject matter of claim 39 (which appears to lack essential features) is anticipated by any mechanical drill. An excimer laser system operable to expose the embedded fibre connector component (cl. 40) has been anticipated by D1 (paragraphs 36,65-66).

2.5 A comparison of the two different groups of STF's shows that there are neither equal nor corresponding STF's.

The special technical features, representing the contribution over the prior art, and the problems to be solved by the respective inventions are all different.

A comparison of the objective problems of these groups, all seen in the light of the description and drawings of the present application, indicates that no technical correspondence between the objective problems exists. The inventions also do not show any corresponding technical effect. The fact that (some of) the inventions could (or will) be used together is not sufficient to acknowledge unity of the invention.

Therefore, the technical relationship between the respective inventions, as required by Rule 13.1 is lacking, and the requirement for unity of invention referred to in Article 17(3)(a) PCT is not fulfilled.

3. In addition that the subject-matter of claims 39-45 is not unitary with the subject-matter of claims 1-38:

- a) the subject-matter of claims 39-43 attempts to define a machine system by operation it performs, i.e., in terms of method features (Article 6 PCT);
- b) the subject-matter of claims 44-45 attempts to define a program product without program product being actually disclosed

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 206

Continuation of Box 3.

Connector component of incompletely searched independent claim 38 has been defined without any technical features as merely suitable for providing a fibre abutment connection.

Further defect(s) under Article 17(2)(a):

Continuation of Box 3.

Claims Nos.: 46-54

The subject-matter of non-searched claims 46-54 is defined merely by references to the accompanying drawings.
According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary,
which is not the case here.

Patent Family Annex

Information on patent family members

International Application No

PCT/GB2004/005376

| Patent document cited in search report | Publication date | Patent family member(s) | | | Publication date |
|--|------------------|-------------------------|------------|------|------------------|
| US 2002136498 | A1 26-09-2002 | AU | 777128 | B2 | 07-10-2004 |
| | | AU | 2530901 | A | 24-07-2001 |
| | | EP | 1247124 | A2 | 09-10-2002 |
| | | EP | 1353206 | A2 | 15-10-2003 |
| | | WO | 0151974 | A2 | 19-07-2001 |
| | | JP | 2003519822 | T | 24-06-2003 |
| JP 2002156093 | A 31-05-2002 | NONE | | | |
| US 5568582 | A 22-10-1996 | NONE | | | |
| WO 03098301 | A 27-11-2003 | AU | 2003233889 | A1 | 02-12-2003 |
| | | WO | 03098301 | A2 | 27-11-2003 |
| US 5355429 | A 11-10-1994 | FR | 2700021 | A1 | 01-07-1994 |
| | | GB | 2274178 | A ,B | 13-07-1994 |